

ORGANIZATION OF THE BODY

OBJECTIVES:

1. Define anatomy and physiology and describe the various specialties within each discipline. (pp 4 – 5)
2. List and describe the six structural levels of organization in the human body. (pp 5 – 7)
3. List the eleven body systems, identify the major structures in each system, and describe the major function of each system. (pp 7 – 13)

LEVELS OF ORGANIZATION:

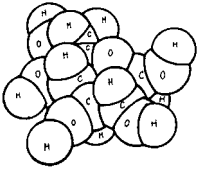

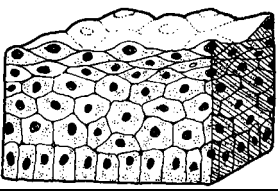
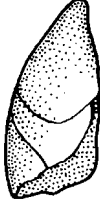
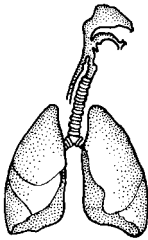
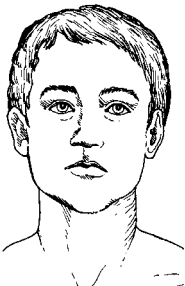
Diagram	Level of Organization	Description
		
		
		
		

Diagram	Level of Organization	Description
		
		

Questions:

- Listed below are the major functions of the organ systems in the human body. Identify the body system described.

MAJOR FUNCTION(S)	BODY SYSTEM
Defense against infection and disease	
Filter blood, collect and remove nitrogenous wastes from blood, and maintain water, salt, acid/base, ion balance	
Intake of air and gas exchange	
Intake of food, mechanical and chemical breakdown of food, absorption of building blocks of food, and formation of solid wastes	
Internal transport of cells and dissolved materials	
Processes information, provides short-term control over activities of other organ systems, and directs immediate responses to stimuli	
Produce hormones	

MAJOR FUNCTION(S)	BODY SYSTEM
Produce sex hormones and eggs, site of fertilization and embryo development	
Produce sex hormones and produce sperm	
Protection from environmental hazards and temperature control	
Provide movement, produce heat, and support skeletal position	
Support and protection of soft tissues, mineral storage, and blood production	

2. Identify the organ system to which each of the following organs belongs.

MAJOR ORGAN(S)	BODY SYSTEM
Bones, cartilage, ligaments, and tendons	
Brain, spinal cord, and nerves	
Heart, blood vessels, and blood	
Kidneys, ureters, urinary bladder, and urethra	
Lungs, nasal cavities, sinuses, pharynx, larynx, trachea, bronchi	
Lymphatic vessels, lymph nodes, spleen, and thymus	
Mouth, teeth, tongue, salivary glands, pharynx, esophagus, stomach, intestines, liver, gall bladder, and pancreas	
Ovaries, oviducts, uterus, vagina, and mammary glands	
Pineal gland, pituitary, thyroid, parathyroid, thymus, adrenal glands, kidneys, pancreas, testes, and ovaries	
Skeletal, cardiac, and smooth muscles	

MAJOR ORGAN(S)	BODY SYSTEM
Skin, hair follicles, sebaceous and sweat glands, nails, and sensory receptors	
Testes, epididymis, ductus deferens, seminal vesicles, prostate, urethra, penis	

3. Examine the organs pictured on the Organ Cards and determine to what organ system each belongs. NOTE: Identification of organs K through P and the organ system to which each belongs is extra credit.

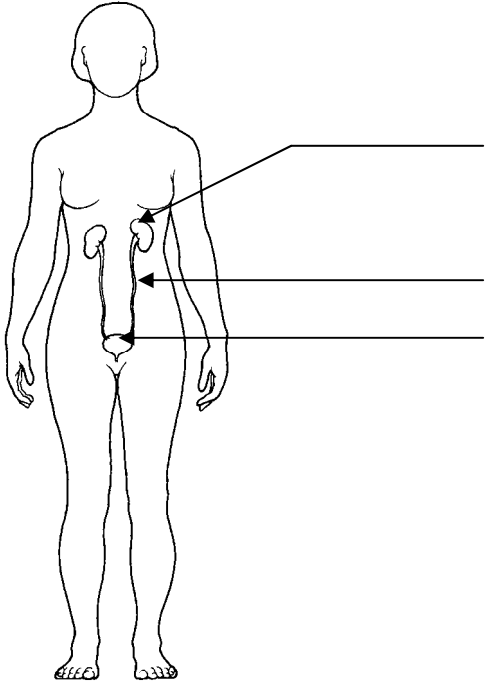
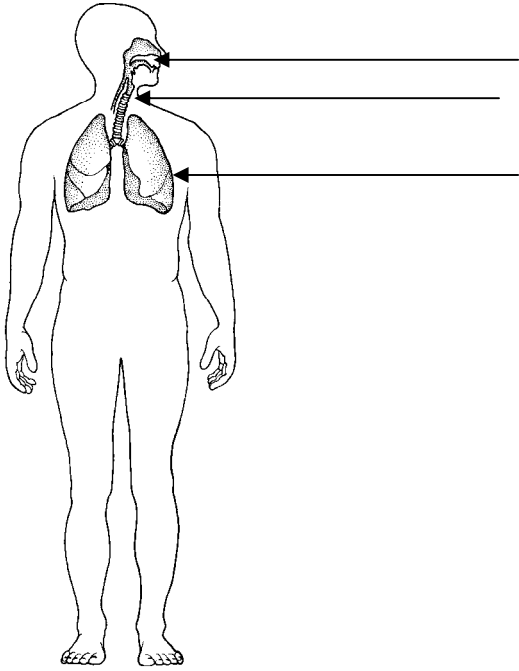
LETTER	NAME OF ORGAN	ORGAN SYSTEM
A		
B		
C		
D		
E		
F		
G		
H		
I		
J		
K		
L		
M		
N		
O		
P		

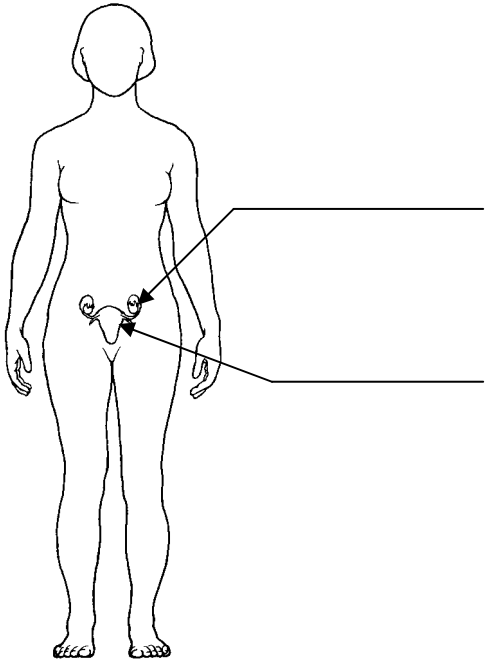
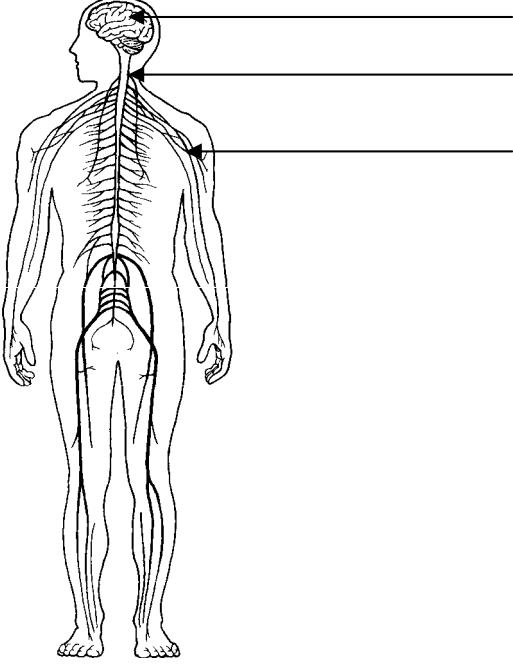
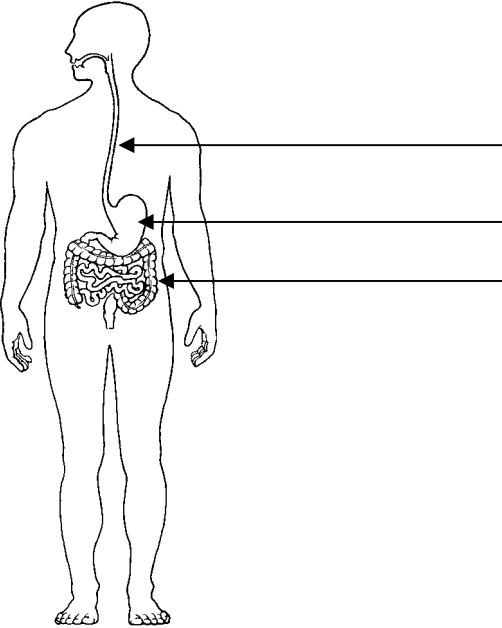
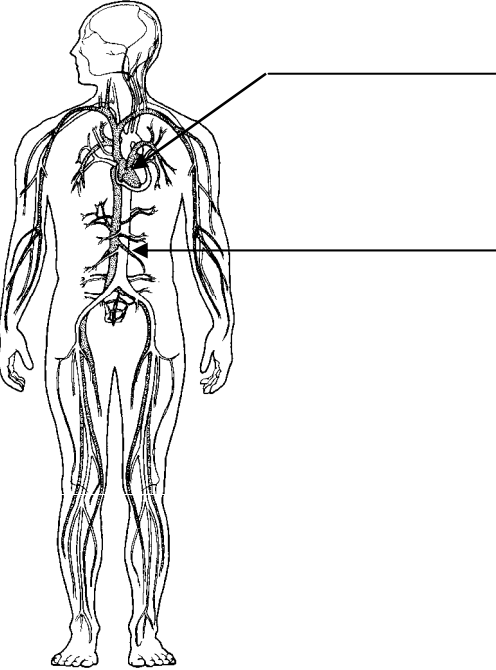
4. Each of the diagrams in this section represents one of the systems in the human body.
- Identify the body system represented in each picture by writing the name of the system in the box above the picture.
 - Label the following structures on the diagrams:

Bladder
Blood vessels
Brain
Esophagus
Heart
Intestines

Kidneys
Lungs
Nasal cavity
Nerves
Ovaries
Spinal cord

Stomach
Trachea
Ureters
Uterus

Body System:	Body System:
	

Body System:	Body System:
	
Body System:	Body System:
	

5. Match the definition with the correct term.

- | | |
|------------------------|-----------------------|
| a. Anatomy | h. Physiology |
| b. Cell physiology | i. Regional anatomy |
| c. Cytology | j. Special physiology |
| d. Gross anatomy | k. Surface anatomy |
| e. Histology | l. System physiology |
| f. Human physiology | m. Systemic anatomy |
| g. Microscopic anatomy | |

- _____ Study of internal and external structures of the body and the physical relationship between body parts
- _____ Study of very small structures that require magnification to be seen
- _____ Study of cell structure
- _____ Study of groups of cells working together (tissues)
- _____ Study of structures visible without magnification
- _____ Study of the general form of the body and superficial markings
- _____ Study of all parts (internal and external) of a specific area of the body
- _____ Study of the major organ systems
- _____ Study of the function of anatomical structures; considers both physical and chemical processes
- _____ Study of the functions of the human body
- _____ Study of the functions of the living cell
- _____ Study of the physiology of a specific organ
- _____ Study of the functions of an organ system